



UNIVERSITY
of HAWAII®
MĀNOA

MĀNOA AT 100

A hundred years at the crossroads of the Pacific has imbued the University of Hawai'i's flagship campus with a rich heritage built on passion for learning, commitment to service and respect for diverse cultures



**Inside: A century of contributions
The legacy of voyaging
A sustainable future
Generations of graduates**

1907

Aloha!

Serving as UH Mānoa's chancellor is a privilege—and I can assure you that it is never boring! Our Centennial Celebration activities have created many opportunities to look back at



all that our scholars, researchers and graduates have accomplished in a first century of excellence. Because of their efforts, we now cross the threshold into a dynamic second century with the promise of greatness.

To fulfill that promise, we must meet head-on the dual challenges of renewing our campus and refreshing our academic and research agendas to best serve our students and solve society's problems, thus enabling UH Mānoa to serve as a destination of choice for students, faculty, staff and the citizens of Hawai'i and beyond.

Former President Jimmy Carter says, "You must adapt to changing times, but hold to unchanging principles." Thus we are firm in our resolve to keep and build on the underlying values that have made Mānoa great, including the commitment to recognize and honor our host culture, welcome and nurture diversity and always focus on the strategic imperatives that support our mission to educate, explore and serve.

We savor this Mānoa Moment and look to the future with energy, excitement and enthusiasm. Mahalo to all of you for being members of our Mānoa 'ohana.

Virginia Hinshaw, Chancellor

100 AND COUNTING...

Nearly everyone who lives in Hawai'i attended or earned a degree from the University of Hawai'i at Mānoa, knows someone who did or has some other link with the campus. The research that quantifies those connections also shows that Mānoa's strong academic programs, the diversity of our population and the high regard for our professional programs in business, law, medicine and engineering make the campus a desirable college destination. Mānoa at 100 remains the flagship of the state's public higher education system, clearly the campus all Hawai'i thinks of at the mention of "the university." Classrooms, research facilities, academic programs and community outreach services extend to five islands of the state. Cutting-edge research and scientific discoveries in ocean and earth sciences and astronomy receive worldwide notice. A generation of Asian and Pacific leaders list Mānoa credentials on their resumes.

Entering its second century, a mature Mānoa has pledged to replace and restore aging infrastructure to keep pace with the vibrant research enterprise and the expectations of students who sign on to fulfill their hopes and dreams. "The jewel in the crown has lost some luster," as new Chancellor Virginia Hinshaw points out, quickly adding, "We are determined to make it shine again." In the end, of course, Mānoa is still the jewel, reflecting the light of knowledge—mālamalama—that nurtures the future leaders of Hawai'i and daily adds to our understanding of the world in which we live.

A host of activities is planned as UH Mānoa marks the conclusion of its Centennial Celebration during Homecoming Week in early October. Stay tuned for details; the opportunity for alumni to re-engage the campus is an appropriate way to close the observance as the institution seeks to reinforce its pervasive presence in our community.

A pair of centennial histories are available from UH's founding colleges:

- *Hawai'i's College of Tropical Agriculture and Human Resources: Celebrating the First 100 Years* is due out in May. The hardbound, 300-page comprehensive history is illustrated with more than 670 photos from various archives and private collections. Cost is \$30 plus shipping and handling; to order, call 808 956-7036, email ctahrpub@hawaii.edu or download an order form at www.ctahr.hawaii.edu/adv_order.pdf.

- *College of Engineering Centennial History, 1908–2008* recounts college personalities and highlights, from awarding of the first degree (to Yong Fook Tong in 1912) through creation of the Hawai'i Space Flight Laboratory in 2007 to future initiatives. For information on the softcover book, contact the dean's office, 808 956-7727, or view www.eng.hawaii.edu/about-us/history/centennial.

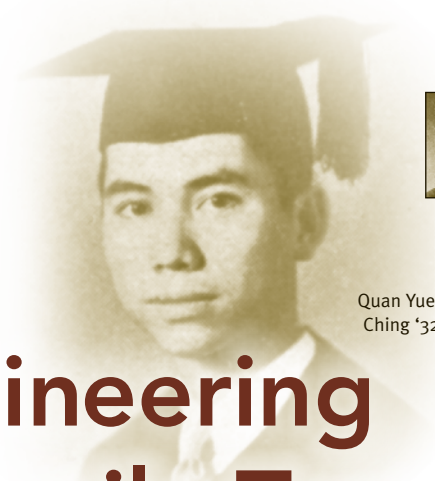
Engineering a Family Tree

Quan Yuen Ching appears serious and confident in his picture in the 1932 *Ka Palapala* annual. He must have been a good role model—four nephews followed in his footsteps as UH engineering students: Hung Joong ('41), Thomas Hung Tung ('50), Leonard Hung Leon ('59) and Reginald Hung Fo Young ('59), emeritus professor of civil engineering and interim dean of the college from 1989 to 1993. Their cousin Walter Hee ('61) is also an engineering graduate. Four Young nephews then followed suit: Jeffrey ('76), George ('78), Jon ('79)—who married engineering classmate Linda Katsura ('79)—and Bruce ('80), the lone mechanical engineer among all the family civil engineers. That's 11...and counting. Reginald's grandson, Ethan Young, just finished his freshman year with every intention

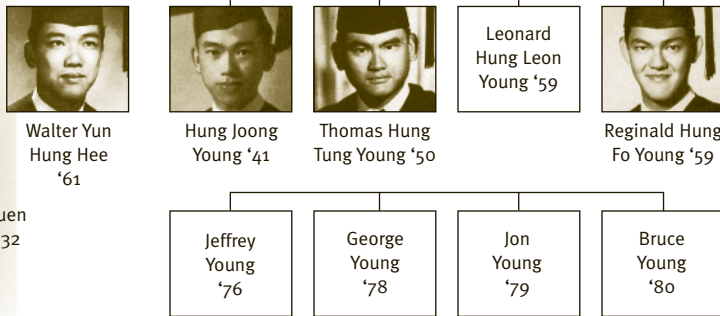
of adding to the family's UH engineering tally. Only slightly less prolific is the engineering family dynasty of Wallace Endo, who earned his UH civil engineering degree in 1954 and co-founded SEY Engineers. Endo's three children also graduated from UH Mānoa's College of Engineering. Son Howard Endo ('78) now serves as SEY president. Daughters Sheryl (Endo) Nojima ('80) and Carolyn (Endo) Len ('92) got more than their degrees at UH; both married engineering classmates—Michael Nojima ('81) and Peter Len ('91), respectively. Sheryl, who at one time served as the college's assistant dean, and her husband are with Gray, Hong, Nojima and Associates. Carolyn is with Belt Collins Hawai'i; her husband is with NAVFAC Pacific, and her father-in-law

Raymond Len, a 1962 UH grad, albeit in mechanical engineering, is now retired. But wait, there's more! Howard Endo married Linda Hihara-Endo ('78), a UH engineering alum now with the US Army Corps of Engineers. Linda's siblings are also UH engineering graduates—Mānoa Professor of Mechanical Engineering Lloyd Hihara ('83) and Shirley (Hihara) Matoi ('80), presently with NAVFAC Pacific. Lost count? That makes 10 engineers in the Endo/Nojima/Hihara/Len clan, all UH alumni.

Save the Date: The College of Engineering will celebrate its centennial with a homecoming event Oct. 7, 5:30–9 p.m., in the Stan Sheriff Center. Watch events at www.eng.hawaii.edu for details.



Quan Yuen Ching '32



Ethan Young



Mānoa College of Engineering's centennial year opened with the 50th anniversary of the UH chapter of national civil engineering honor society Chi Epsilon. More than 180 students, alumni and guests gathered in December to initiate new members and recognize the founders. Net proceeds, totaling more than \$10,000, were donated to the endowed scholarship honoring founding advisor Arthur N. L. Chiu. Attendees included founding members, from left, Edward Lau, Hisao Yamada, Allen Matsuoka, Richard Sato, Hanako Kuniyoshi (representing her late husband Shinki) and Ed Hirata, with Katherine Chiu, Dean Peter Crouch, Mānoa Chancellor Virginia Hinshaw and Hawai'i Chi Epsilon Alumni Association President Carl Iwasaki. For information on the association, contact Iwasaki at 808 841-8024.

■ **Pioneering faculty**

1 Frederick Krauss joined UH as a professor of agriculture from 1911. He explored the viability of various crops and headed the Extension Service.

2 Carey Miller's 1936 book on the nutritional content of Hawai'i fruit remains a standard.

3 Doak Cox helped plan UH's Hawai'i Institute for Geophysics and establish the Joint Tsunami Research Effort, Natural Hazards Group and Water Resources Research Center.

4 Albert Tester, a UH zoologist from 1948 until his death in 1974, developed an international reputation for early research on tuna and extensive work on shark sensory systems.

5 O. A. "Ozzie" Bushnell worked 50 years on *Gifts of Civilization: Germs and Genocide in Hawai'i*, his 1993 book describing the effect of diseases on an isolated island group.



6 Klaus Wyrтки identified key components of the El Niño phenomenon and produced the most comprehensive and first computer-made atlas of the Indian Ocean.

7 Hampton Carson joined UH's genetics faculty after working with the Hawaiian Drosophila Project in 1963. His research on evolutionary genetics earned international acclaim.

8 George "Doc" Wollard, head of the Hawai'i Institute of Geophysics 1963–1979, studied gravity and magnetism. His name graces an Antarctic mountain and a Geological Society of America award.

9 George P. L. Walker, first to hold the Gordon A. Macdonald Chair in Volcanology, is considered the father of modern volcanology for his work on basaltic volcano formation around the globe.

10 John Craven established the Natural Energy Laboratory at Keāhole Point, proposed a floating city and predicted the Navy would stop bombing Kaho'olawe if Hawai'i people would exert political pressure.

11 Vincent De Feo identified hormone-induced changes to the uterus during pregnancy. He recruited faculty who advanced understanding of human sexuality and championed problem-based medical training.

■ **New disciplines**

12 Comparative philosophy was advanced by Charles Moore, who hosted the first East-

Center for International Business Education and Research helped Shidler College of Business earn a top-25 graduate school ranking.

16 Linguist George Grace joined UH in 1964 and introduced Austronesian language instruction. Robert Hsu's concordance and Pacific and Asian Linguistics Institute reference works took the languages of Micronesia from among the most poorly documented to among the best. Later Teresita Ramos introduced the world's first Ilokano program.

17 The School of Travel Industry Management integrated hospitality, tourism and transportation in 1966 and addresses cultural and sustainability concerns now. Economist James Mak's new book examines a half century of local tourism for lessons in *Developing a Dream Destination*.

18 Alternative future studies resident expert James Dator participates in the World Futures Studies Federation. UH has the only department offering an advanced degree in the subject.

19 Ethnobotany was introduced to a generation of students when Beatrice Krauss, the first woman to earn a BS from UH in 1926, returned after retirement to teach as a volunteer.

20 A creole language (Hawaiian pidgin) bibliography was the first publication of the Oceanic Linguistics Special Publications. Derek Bickerton conducted a large historical study in the 1970s and wrote extensively on pidgin and creole linguistics through his retirement in 1995.

21 Political scientist Glendon Schubert built on writings he began in the 1950s to help develop subdivisions of judicial behavior and biopolitical behavior during his UH tenure, 1971–2000.

22 The Center for Biographical Research, founded under George Simson in 1976, was the first such center in the country. It produces the journal *Biography*, popular brown-bag talks and the

100

CONTRIBUTIONS

UH concludes its centennial with some remarkable achievements under its belt. Here's a sampling of ways the university has made a difference during its first 100 years.

West Philosophers' Conference in 1939. Eliot Deutsch joined the faculty in 1967 and edited the journal *Philosophy East and West*.

13 World History, established in 1990 with Jerry Bentley as editor, fit an institution that was the first to offer world civilization courses (in 1945) and became headquarters of the World History Association.

14 Ethnomusic developed when classical pianist Barbara Smith learned koto, hula chant and Bon dance drumming after joining the music department in 1949; a master's program was established in 1960.

15 Asian-focused MBA programs and early federal designation as a



Biography Hawai'i public television series.

23 Decision science founding Chair Ralph Sprague's framework article on decision support systems was one of the 25 most cited works in the information systems field during the 1980s.

24 Conservation biology launched as a graduate specialization in 1991, building on the 5-year-old Hawaiian Evolutionary Biology Program.

■ Outreach

25 Pacific Islands experts advised U.S. officials in post WWII administration of Micronesian islands. Political scientist Norman Meller helped emerging Pacific nations develop their constitutions.



26 Advancing the arts, Professor of Music Raymond Vaught founded the Honolulu String Quartet; dance Chair Carl Wolz, left, co-created the Asia Pacific Dance Alliance and Hawai'i's Artists in the Schools program.

27 Satellite communication for educational and humanitarian purposes was realized in 1969 with the Pan-Pacific Education and Communication Experiments by Satellite, or PEACESAT. Multiple technologies now link 16 Pacific Islands sites.

28 The Citizens Chair in English, created by the Legislature in the mid-1960s, gives Hawai'i readers access to prominent literary figures. Pulitzer winning biographer Leon Edel held the post 1969–78.

29 UH Art Gallery earned five *Print Casebooks* Best in Exhibition Design honors during the 1980s. *Excelling the Work of Heaven* received an American Association of Museums 2008 MUSE award.

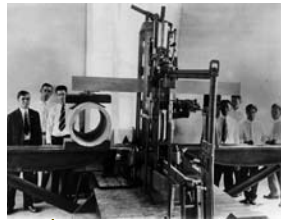
30 Children's Literature Hawai'i, a biennial conference founded by the English department in 1982, focuses on creating, using and interpreting literature for children and teens.

31 Philosophy in the Schools has been teaching children to think critically, express their thoughts and develop reasoning skills since the mid-1980s.



32 Growing Old in a New Age was an ambitious undertaking of Anthony Lenzer's Center on Aging. The series aired on national public TV in 1989 and was licensed to 40 colleges as a telecourse.

■ Research initiatives



33 The Engineering Materials Testing facility opened in 1915, demonstrating lessons and testing concrete construction at Pearl

Harbor dry dock. The College of Engineering continues materials corrosion studies.

34 Coconut Island's Hawai'i Marine Laboratory was UH's first designated research lab. Robert Hiatt courted individuals, foundations and agencies for resources and lobbied lawmakers to designate 64 surrounding acres of coral reef a marine laboratory refuge.

35 A food irradiator was brought to Mānoa in 1964. James Moy, principal investigator since 1968, developed low-dose protocols for disinfection of fruits for export. In 1995, Hawai'i became the first place in the world to use the technology.



36 Hawai'i Geothermal Project, organized in 1972, demonstrated that volcanic heat is a viable source of electricity. Cultural and environmental concerns created resistance.

37 Hydrogen fuel research began at UH in 1983. The Hawai'i Natural Energy Institute program hosted an international conference the following year and was designated a National Research Success Story in 1999.

38 Criminologist Meda Chesney-Lind has brought national attention to issues including juvenile offenders, women in the criminal justice system, gangs and school safety.

39 Hawai'i Ocean Time Series has obtained physical and biogeochemical observations for 20 years at a location north of O'ahu characteristic of the central North Pacific Ocean.

40 Women's Health Initiative is a 15-year project investigating lifestyles, treatments and health concerns. UH and 23 other institutions began enrolling women in 1994.

■ Scholarly achievements

41 Kabuki, performed at UH as early as 1923 and at the opening of Kennedy Theatre in 1963, set the stage for the university's prominence in Asian theatre.



42 A Hawaiian language text with 83 lessons in grammar and vocabulary was released by Henry Judd in 1936.

43 Asian identity is explored in Ch'en Shou-yi's 1930s examination of 18th-century English literature depictions of China and Takie Lebra's ongoing investigation of sense of self among Japanese women.

44 Medieval Japanese history translated from the *Azuma Kagam* by Minoru Shinoda in 1960 is still an important document for Japan scholars.

45 Rain maps created by UH meteorologists and geographers in the 1980s remain the standard.

46 In ancient writings, Walter Maurer was a leading Sanskrit scholar; Robert Littman digitized the oldest Greek manuscript of the Bible; Ulrich Kozok identified an ancient Malay legal code.

47 Chinese lexicography advanced with Emeritus Professor John DeFrancis's *ABC (Alphabetically Based Computerized) Chinese English Dictionary* and other publications.

48 Seventeen academic journals published by UH Press cover topics from Buddhist-Christian studies and contemporary Chinese art to archaeology, geography and science of the Pacific/Asia region. See www.uhpress.hawaii.edu.

■ Namesake buildings

49 John M. Young Quadrangle for the first engineering professor, whose plan for the college in 1909 included schools of law, medicine and architecture and an observatory on Wa'ahila Ridge.

50 William George Hall for the former Geneva College president who served in the

French army and Italian ambulance service in WWI before becoming dean of arts and sciences in 1930.

51 Arthur L. Andrews Outdoor Theatre for an early Cornell-trained professor. He taught English and organized the first play, campus newspaper and annual.

52 Leonora (and Earl) Bilger Hall for the chemistry couple. She oversaw construction of the building, was named the nation's outstanding female chemist in 1953 and donated \$25,000 to remodel a biochemical laboratory in her husband's memory.

53 John A. Johnson Hall for the student leader and athlete turned sugar company manager and 100th Battalion soldier. He died in the Battle for Cassino.

54 Arthur R. Keller Hall for the lawyer and civil engineer whose paving experiments produced the first campus road. He designed a drainage and flood control system for lower Mānoa.



55 Charles Edmondson Hall for the biologist who wrote the first text on marine animals and organized the first Pacific Science Congress in 1920.

56 Kenichi Watanabe Hall for the physicist considered a pioneer in study of ozone concentration in the upper atmosphere. He established a vacuum ultraviolet spectroscopy lab before his untimely death in 1969.

57 Harold St. John Laboratory for the botanist who oversaw harvesting of Cinchona bark as an alternate source of malaria drugs during WWII.

58 Willis T. Pope Laboratory for one of UH's first doctoral candidates, who served as a UH instructor and administrator and territorial superintendent of public instruction.

59 Wilfred Holmes Hall for the dean who oversaw growth in engineering enrollment from a few dozen to 800 in two decades following WWII.

60 Allan (and Marion) Saunders Hall for the political scientist who fought for the right to wear aloha shirts in 1953, helped establish the state constitution and started the Hawai'i chapter of the American Civil Liberties Union in 1965.

61 Shunzo Sakamaki Hall for the alumnus who taught Asian history for 34 year and established summer course sessions.

62 G. Donald Sherman Laboratory for the soil scientist and American Association for the Advancement of Science fellow who promoted Hawai'i's guava and passion fruit industries.

63 Stan Sheriff Center for the athletic director who secured broadcast deals, balanced the books and successfully fought for the 10,000-seat domed complex that opened one year after his death.

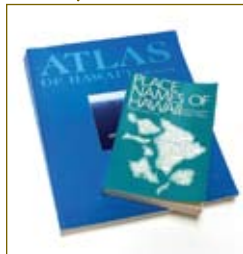
■ *UH Press best sellers by decade*

64 *The Hawaiian Kingdom, Volume 1: 1778-1854, Foundation and Transformation*, by Ralph S. Kuykendall, associate professor of history (1948). Describes pre-contact Hawai'i and foundations of modern Hawai'i. Later volumes cover efforts to maintain independence and the Kalākaua dynasty.

65 *Hawaiian-English Dictionary*, by Mary Kawena Pukui and Samuel H. Elbert, professor of pacific languages and linguistics (1957). The expanded 1986 version, considered the most complete of any Polynesian dictionary, has sold 107,000 copies and the 1992 pocket version, 200,000.

66 *Place Names of Hawai'i*, by Mary Kawena Pukui and Samuel H. Elbert (1966). Revised and expanded in 1974 with UH language instructor Esther T. Mookini and released in paperback in 1977.

67 *Atlas of Hawai'i*, by the UH Mānoa Department of Geography (1973). Professor R. Warwick Armstrong's project was updated with new census data in 1983 and completely redone by UH Hilo faculty members with computerized cartography in 1998.



68 *A is for Aloha*, by Stephanie Feeney, professor of education, with photos by Hella Hamid (1980). UH Press's first children's work provided tots with a book portraying local experiences. Three additional Feeney books followed.

69 *Ka Lei Ha'āheo: Beginning Hawaiian*, by Alberta Pualani Hopkins, professor of Indo-Pacific language (1992). Widely used for first-year classroom and personal instruction.

70 *Integrated Korean*, by the Korean Language Education and Research Center (2000), first volume of a five-level series that has dominated the Korean language market. Authors include Mānoa's Young-Geun Lee and Ho-min Sohn.

■ *Economic stimulus*

71 Food crop varieties developed by UH are many, including disease resistant Sun Up and Rainbow papayas, which saved a \$40 million industry threatened by papaya ringspot virus.



72 Aquaculture research begun in the 1960s has gained momentum. In the late 1980s, UH became one of five U.S. Department of Agriculture designated aquaculture centers. Marine Research Training Center demonstrated projects involving shrimp, fish and snails in Kāne'ohe Bay.

73 Black coral is a profitable, well managed and sustainable \$15 million industry thanks to a 1970s research program.

74 The multiplier effect converts every \$1 of state general funds invested in the university into an additional \$1.88 in education-related spending. Since 2000, economists have pegged UH's value at about 3 percent of the gross state product, generating well over \$100 million in state and local taxes annually.

■ *Greater good*

75 An antidiscrimination proviso in the 1907 legislative charter creating UH states: "No person shall, because of sex, color or nationality, be deprived of the privileges of this institution." During WWII, Regent Hemenway helped convince authorities of the loyalty of Japanese Americans, saving many in Hawai'i from internment camps.

76 Student Health Services was one of the nation's first college health programs to offer family planning services to students.

77 The Spark M. Matsunaga Institute for Peace has provided a multi-disciplinary approach to peace studies since 1984.

78 The Rare Hawaiian Plant Project was launched by Lyon Arboretum in 1991 to



protect and propagate native plants and create a germ plasm collection of endangered species.

79 Hawaiian sovereignty discussions resonate in UH classrooms. Mānoa Library's Special Collections has assembled resources on the topic at www2.hawaii.edu/~speccoll/hawaiiites.html.

80 Nuclear fallout drove Marshallese from their Rongelap atoll for weapons testing in the 1950s and from lingering contamination three decades later. In 2002 the Pacific Business Center coordinated assessment and community planning for their return. Journalism Professor Beverly Kever's 2004 book *News Zero* explores the role the *New York Times* played in shaping public opinion about U.S. nuclear weapon testing.

81 Center for Excellence in Native Hawaiian Law, a federally funded center for education, research and outreach was established in 2005.

82 Broken Trust: Greed, Mismanagement and Political Manipulation at America's Largest Charitable Trust, co-authored by Professor of Law Randall Roth, in 2006 documented breaches of fiduciary duty resulting in the downfall of trustees overseeing Bishop Estate's management of Kamehameha Schools.

■ Discoveries

83 Food chemistry advances were made by Alice Thompson, who analyzed the nutritional value of guava in 1915, and Alice Ball, known for extracting chaulmoogra oil to treat Hanson's Disease, who identified the active ingredient in kava.

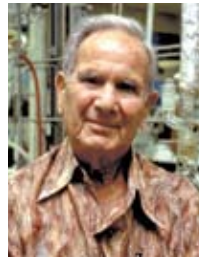
84 Hormonal growth and protein synthesis research by Department of Biochemistry and Biophysics founder Theodore Winnick laid the groundwork for later cancer research.

85 Coral reef ecology has been a Hawaiian Institute of Marine Biology focus since the 1960s. Researchers documented affects of temperature change and sewage discharge and identified the phase of the moon when coral spawn.

86 Lō'ihī volcanism was first documented by UH scientists in 1970. Repeated dives and remote monitoring add to knowledge about

the birth of volcanic islands.

87 The Chemistry of Marine Natural Products, Paul Scheuer's 1973 book was the first in any language on the topic. Working well into his 80s, he identified marine toxins with potential anti-fouling and anti-cancer properties; work continues under Richard Moore.



88 Glowing bacteria growing on undersea thermal vents were first observed by oceanographer David Karl, UH's first National Science Foundation Young Investigator awardee. Later, Microbiologist Maqsudul Alam was the first scientist to sequence the genome of the new bacterial species.



89 Sexual selection, the concept that mate preference influences species formation and populations faced with extinction, was first described by Hawaiian *Drosophila* project researcher Kenneth Kaneshiro in 1987.

90 Marine mammal behavior, including dolphin cognition, song patterns, humpback migration routes and mother-calf interaction, are among findings made during 17 years of research by psychologist Louis Herman and associates.

91 The first Kuiper's Belt object was discovered by astronomer David Jewitt in 1992. The ring of debris and small bodies beyond Neptune generates short-period comets and holds clues to planet formation and dust rings around other stars.

92 Neutrinos have mass, a 1998 finding challenging the Standard Model of Physics, is just one of the advances stemming from international collaborations that involve UH physicists. Vincent Peterson began assembling the core high energy physics team in the early 1960s.

93 Geoscience citations tallied by Science Watch placed Mānoa in the top 20 international institutions, with UH research cited



13,226 times in geoscience journals between 1991 and 2001.

■ Inventions

94 Floriculture varieties developed for growers by UH breeders include new anthurium and orchids created first by Minoru Aragaki, followed by Haruyuki Kamemoto and now Adelheid Kuehnle.

95 Before cloned and green transgenic mice, Ryuzo Yanagimachi laid the groundwork for in vitro fertilization by identifying the conditions necessary to produce "test-tube" offspring. Four decades later, he continues to publish on factors that enhance fertilization and influence early embryonic development.

96 ALOHA, the Additive Links On-line Hawai'i Area systems network developed by electrical engineer Norman Abramson in the 1970s to transmit data by radio waves, was a steppingstone to advanced wireless communication systems.

97 Towed sidescan sonar designed by Margo Edward's Hawai'i Mapping Research Group is charting the ocean floor.

98 Ciguatera testing developed by Yoshitsugi Hokama helped detect fish-borne toxin that creates unpleasant side effects in an estimated 100 cases a year in Hawai'i

99 A termite barrier of granular material developed by entomologist Minoru Tamashiro provides cheap, permanent, non-polluting protection against destructive subterranean termites.

100 A 16-megapixel camera developed by the Institute for Astronomy optics group made a 30-year-old telescope the best infrared imager in the world.

What's missing?

Tell us about the UH contribution you find memorable. Email magazine@hawaii.edu or write Mālamalama, 2444 Dole St., Honolulu HI 96822

Nancy Morris contributed to this report. References include *Building a Rainbow, Mālamalama: A History of the University of Hawai'i, Moku o Lo'e*, UH and Sea SOEST Report 04-01 and various print and online college and department histories.

Hokule'a's Legacy Sails On

After 30 years, voyaging still sparks Hawaiian pride and academic study

by Dale Moana Gilmartin

The Hawaiian renaissance—arguably the most important social development in Hawai'i since statehood and the envy of indigenous nations throughout the world—can be traced to the successful completion of the 1976 voyage of *Hokule'a*, the replica of an ancient Hawaiian voyaging canoe, from Hawai'i to Tahiti. “The rebirth of traditional Hawaiian non-instrument navigation has made for a kind of cultural, spiritual and academic rebirth of the Hawaiian people,” observes Polynesian Voyaging Society board member and UH Mānoa Professor of Hawaiian Studies Lilikalā Kame'elehiwa. Polynesian-style voyaging is now widely hailed as the most sophisticated and effective long-distance, non-instrument navigation in the history of global seafaring.

That wasn't always the case. When Ben Finney was a young UH Mānoa graduate student in anthropology in the '50s, scholars held that the Pacific islands were settled by chance. In 1966



Photo by Naalehu Anthony, Palikū Documentary Films, used with permission of Vaka Taumako Project

he helped construct the first modern replica of a Polynesian voyaging canoe at the University of California at Santa Barbara. The 40-foot scale model of Kamehameha III's double-hulled royal canoe, which Mary Kawena Pukui named *Nalehia*, meaning "the skilled ones," was too small for long distance voyaging, but the experience was instructive. The researchers gathered data on canoe performance to counter the prevailing theory that wind and current accidentally pushed crude Polynesian canoes to new islands.

"The critics were slandering a whole nation," says Finney, "But we didn't have systematic studies to prove otherwise. All the old navigators of the Polynesian Triangle were gone, the old canoes had rotted away, and no one seemed to know much about them. But we could reconstruct the canoes and test them over a long voyaging route."

Stars and stones

Back in Hawai'i to teach at Mānoa, Finney formed the Polynesian Voyaging Society with Hawaiian artist Herb Kane and waterman Tommy Holmes in 1973. To show that the ancient Polynesians could have purposefully settled the Polynesian Triangle, the society constructed *Hokule'a*. The 62-foot replica was the first double-hulled voyaging canoe built in Hawai'i in more than 600 years. It left for Tahiti on May 1, 1976 and, without using instruments, arrived 33 days later in Papeete. The crossing dramatically demonstrated how ancient Polynesians could have used stars and swells to navigate long voyages of exploration and settlement; and it captured the imagination and sparked the pride of people throughout Polynesia.

As subsequent voyages by *Hokule'a* and two later canoes reached as far as New Zealand, Rapa Nui and Japan, voyaging research became an interdisciplinary effort. Mānoa oceanographer Dixon Stroup and meteorologists Bernard Kilonsky and Thomas Shroeder documented trips using satellite tracking and on-board observations. More recently, archaeologist Barry Rolett teamed up with geologist John Sinton to study stone adzes unearthed at archeological sites in French Polynesia.

"*Hokule'a* and other Polynesian Voyaging Society voyages showed that intentional long-distance two-way voyages were possible, but they didn't prove that they actually happened," explains Rolett. For physical evidence, he and Sinton analyzed the specific chemical composition of adzes found at well-dated archeological sites in the Marquesas, where it is widely believed the first Hawaiians originated. High quality stone adzes were vitally important to a culture that didn't possess metal implements. Knowing the chemical fingerprints of ancient tools enabled the researchers to identify the volcanic rock the adzes came from and trace their movement along inter-island trade routes in pre-European contact Polynesia.

The exchange pattern of adzes over time indicates that Polynesian long-distance voyaging reached its heyday approximately 800 years before Captain Cook arrived in Hawai'i and fell off sharply after 1450. "The results are pretty clear," says Rolett. "The adzes show that there was little inter-island contact in late prehistory but lots of open sea voyaging during earlier periods. The adzes confirm some of the oldest Hawaiian legends regarding long voyages." The work wouldn't have



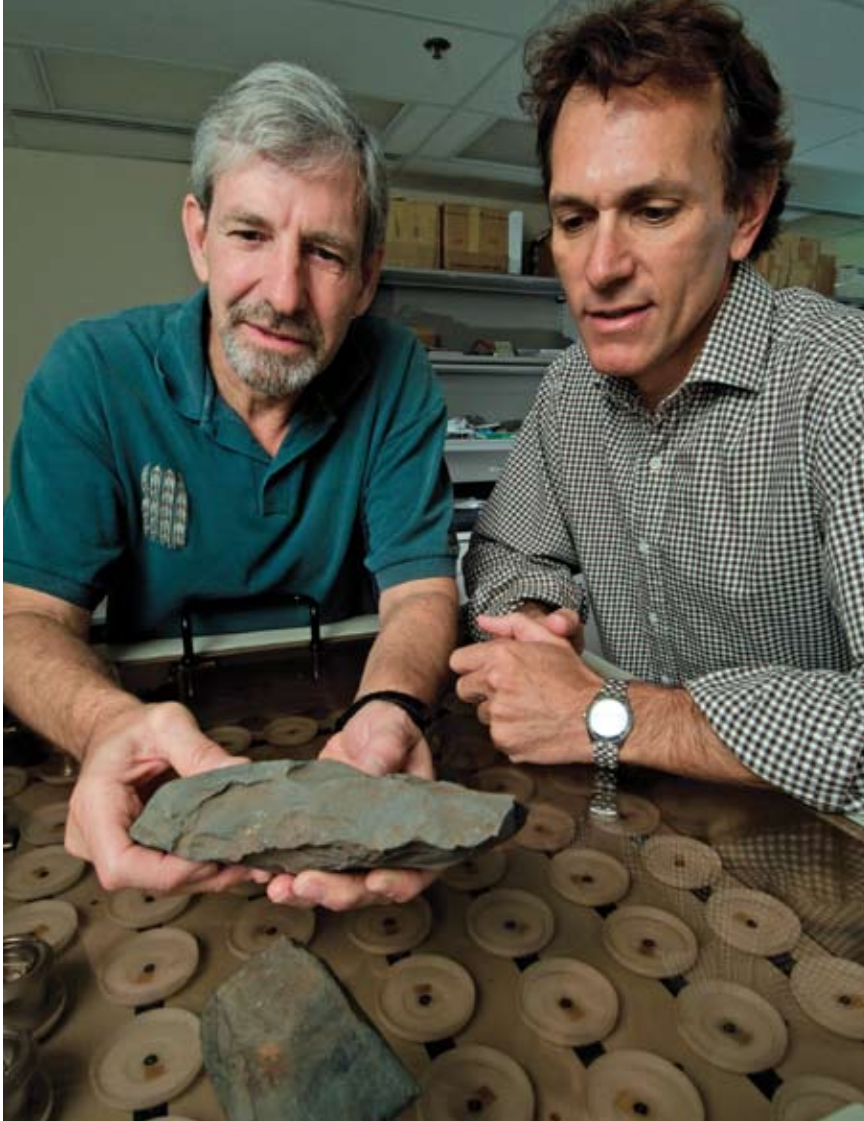
Voyaging influenced Lilikalā Kame'elehiwa's views; now the professor of Hawaiian studies serves on the Polynesian Voyaging Society's board of directors. On page 8: Hawaiians may have used a wind compass in voyaging

been possible without the context provided by *Hokule'a* and the Polynesian Voyaging Society, he adds. "This is really their story."

Wayfinding with wind

The story continues to be written as Hawaiian and other Pacific island communities build additional canoes and rediscover more about how ancient voyagers found their way across vast Pacific seas. *Hokule'a's* first voyage primarily depended on star map navigation. Micronesian master navigator Mau Piailug used a traditional navigation system based on a mental star compass with observations of the stars, planets, moon, wind, ocean swells and the flight of navigator birds. He taught Nainoa Thompson, who integrated concepts such as nautical miles and degrees to guide *Hokule'a* throughout Polynesia.

Finney now believes that the ancient Polynesians employed a wind compass rather than one based on



Geologist Barry Sinton and archaeologist Barry Rolett track travels through adze samples

stars. “We used to think that the wind compass, which is actually a mental construct of bearings named after key wind directions rather than a physical instrument, had totally died out,” he says. Then, in 1993 a colleague, anthropologist Marianne “Mimi” George, met Koloso Kaveia, an elder who could still navigate by the Polynesian wind compass. Kaveia comes from Taumako, a small volcanic island in the southeast Solomons far to the west of Hawai‘i. It is completely outside the Polynesian Triangle, but its inhabitants are of Polynesian descent, language, culture and lifestyle.

In 1994 Kaveia and George founded the Vaka Taumako Project to document this navigation system, rebuild the old canoes and navigate them between the islands using the

wind compass. Like the Polynesian Voyaging Society, it is a cultural revival project steered by members of its own culture. Finney, who returned from Taumako early this year, hopes that once the Taumako people are regularly sailing their canoes again, Polynesians can make pilgrimages there to learn the ancestral way of navigating and the Taumako can sail their *puke* voyaging canoes around Polynesia to demonstrate their highly efficient double crab-claw sails woven from specially grown pandanus leaves.

A new generation

Now emeritus though hardly retired, Finney never lost the vision of *Hokule‘a* as a floating classroom—a dream come true in school, community college and university classrooms.

Kame‘eleihiwa is among those who have learned onboard and says it changed her life. “For the very first time I understood that knowing our ancestors, and seeking their wisdom, was one of the most important things that I could do, even more important than politics. What good would it be to have an independent Hawai‘i if we no longer knew our culture?”

She helped develop the Hawaiian astronomy and navigation courses now taught by Associate Professor Carlos Andrade. His first voyage inspired him to return to college at age 43 to learn the Hawaiian language. The one-time subsistence farmer/fisherman who earned a living doing odd jobs is now a college professor with a PhD who envisions carrying the voyaging curriculum into a master’s-level program.

“Glimpsing the history of Pacific Islanders’ settlement has brought me and many other Hawaiians into a stronger appreciation for our collective identity as Oceanic peoples,” says Kamakakūokalani Center for Hawaiian Studies Director Jon Osorio. “We can express a different perspective on the world than simply as Americans.”

“Everyone who sails *Hokule‘a*, whether Hawaiian or not, feels it in their na‘au (inner core),” Kame‘eleihiwa adds. “We Hawaiians are back, we are 400,000 strong, and we will ensure that the knowledge of our ancestors is never lost again.”

Comment on this story, email magazine@hawaii.edu

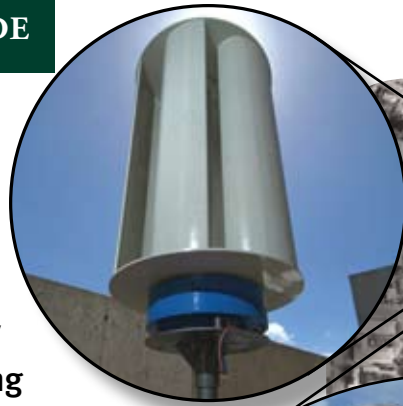
For more on Polynesian voyaging, read Finney’s books, *Hokule‘a*, *Voyage of Rediscovery* and *Sailing in the Wake of the Ancestors* or visit the society website at <http://pvs.hawaii.org>.

More on the Vaka Taumako project at www.aloha.net/~vaka/NohoangaTeMatangi.html.

Dale Moana Gilmartin (BA ’89 Mānoa) is a Honolulu freelance writer

Focused on sustainability and committed to reducing its environmental footprint...

Mānoa Gets Green



by Paula Bender

Saunders Hall opened in 1974 with energy-conserving features of the day—bronze glass to reduce heat gain and mercury lights. Hardly green by today’s standards, the building formerly known as Porteus is now a field site for testing more efficient operation. The Sustainable Saunders Initiative, a pilot project in the UH–Hawaiian Electric Company Energy Partnership, is spearheaded by the College of Social Sciences’ Public Policy Center and an independent student organization called the Sustainable Saunders HUB, for “Help Us Bridge.” Shanah Trevenna, a mechanical engineering graduate student coordinates more than a dozen projects including alternative energy, water catchment, xeriscaping, recycling and worm composting. “Our passionate team of students believes in leading by example,” she says. “We try to use Earth-friendly products and showcase vendors who are local and sustainable.”

“Saunders Hall is a giant concrete bunker,” observes Associate Professor David Nixon, principal investigator for the initiative. “We wanted to see what we could test in this building for energy efficiency and roll out to the rest of the campus and to the community.” UH pays \$1.5 million per month for electricity. Saunders’ seven floors of offices and classrooms account for more than \$150,000 of that. Early in 2008, a de-lamping project began removing hundreds of light bulbs. It was a small step, but resoundingly successful pilot—175 people participated; real savings resulted, Nixon says.

“We didn’t want just to reduce the electric bill, but also to create a more pleasant working environment,” he says. Students built courtyard picnic tables out of recycled plastics. The Horticulture Club is greening up the balconies. Sixth-floor restrooms feature low-flow toilets and no-flow urinals. At the sinks, water spins turbines in the drains, creating energy to power sensors that release tap water

when hands are waved under the spigots. On the roof, an essentially silent and bird-friendly wind turbine contributed by Energy Management Group and a solar PV array are being tested. If successful at Saunders, systems can be fitted throughout the university system and scaled to larger facilities, allowing communities to benefit from the UH experience, says Energy Management Group President Richard Figliuzzi.

Mānoa hopes to generate 25 percent of its own electricity from renewable sources by 2020 and become energy independent by 2050. Leading the effort is the Sustainability Council, whose Kuleana Program trains volunteer coordinators to encourage sustainable practices in their workplaces. In March, the council brought together faculty from fields as diverse as English, physics and engineering who have incorporated sustainability content in their courses. “With a trans-disciplinary topic such as sustainability, no one person can cover even a fraction



Graduate student Leyla Cabugos proposes use of native plants for growing, insulating green roofs

of the issues,” says Mary Tiles, council chair and professor of philosophy.

In addition, the Mānoa Climate Commission is addressing carbon dioxide reduction efforts (oceanography graduate student Craig Coleman is working on a campus CO₂ inventory) and focusing on island adaptation to climate change. Members Makena Coffman and Lorenz Maagard sit on the State Climate Change Task Force.

In research initiatives, College of Tropical Agriculture and Human Resources faculty are addressing the politics and economics of water use and identifying promising crops for biofuels, such as the drought-tolerant *Jatropha curcas* tree. Professor David Christopher employs technology to hasten the benefits of crossbreeding. “People often think that genetic engineering is working against the environment,” he observes. “Our goal is to make plants more resistant to pests and pathogens that attack them so that farmers don’t have to power up their tractors and spray their fields with chemicals that linger in the environment or run off into streams and rivers.”

At the Hawai‘i Natural Energy Institute, Coral Industries Professor of Renewable

Energy Resources Michael Antal has created a Flash Carbonization Reactor pressure vessel that efficiently converts green waste—including corn cobs, macadamia nut shells, invasive weeds, grasses and other plant byproducts—into a high-quality, clean fuel alternative to wood or coal. Soil scientist Goro Uehara also uses the charcoal as a soil enrichment additive. Application of Antal’s technology has earned the university \$200,000 in licensing revenue. Much more is expected. Licensees include charcoal manufacturer Kingsford Products.

Antal is also exploring charcoal-powered carbon fuel cells. More efficient than hydrogen fuel cells, the carbon-based technology is of interest to the military, he says. Colleagues continue HNEL’s 25-year hydrogen research program, looking at solar-to-hydrogen conversion and renewable biological and biomass gasification technologies for hydrogen production and storage techniques including PEM fuel cells. Also, Michael Cooney explores production of biodiesel from yeast and microalgae; Bor Yann Liaw tests advanced batteries and electric vehicles; Scott Turn explores potential for local ethanol production; and Jian Yu develops biodegradable plastics from organic wastes. Researchers are also exploring methane hydrate found under the ocean floor as a potential source of natural gas.

The Center for Smart Building and Community Design translates new technologies into practical applications. Director and Associate Professor of Architecture Stephen Meder is helping the Montessori School of Maui construct a sustainable, green campus that blends new technology with ancient Hawaiian principles, works with the existing topography, includes indigenous and functional plants and uses photovoltaic and solar water heating units. The facility earned an environmental sustainability award from the National Association of Independent Schools’ Leading Edge Program. Closer to home, Meder’s helping create more sustainable and efficient marine laboratories.

Mānoa’s John A. Burns School of Medicine earned a Hawaiian Electric Company

award for incorporated energy-saving features such as use of cold seawater in air-conditioning systems at the Kaka‘ako facility. (Sea Grant College Program’s Arlo Fast first demonstrated the feasibility of cooling with seawater in the early 1980s, using an old truck radiator and household box fan at a Keahole aquaculture lab.) In addition, motion sensors deactivate lights and air conditioning when rooms are not in use. Other Mānoa initiatives include a campus fleet based on alternative fuels and purchase of Energy Star appliances for residence halls. Buildings are being assessed against U.S. Green Building Council standards, and a campus bicycle plan designed. In the future, bio-diesel food kiosks will dot the campus, and more buildings will be cooled with chiller-loop renovations.

Leyla Cabugos suggests an organic approach to reducing the need for air conditioning. The botany master’s candidate assessed native ground cover plants for their potential as insulating green roofs. She found akulikuli grew well in a layer of coconut fiber, cinder and compost. She hopes future studies will document green roofs’ abilities to lower building temperatures and reduce runoff in storm water systems.

As interim chancellor, Professor of Economics Denise Eby Konan joined colleagues across the nation in pledging to curb greenhouse gas production. She calls student participation in “recycle mania” impressive. “To better understand our waste stream, students inventoried rubbish that was tossed into a dumpster, and then devised recycling efforts tailored to the waste generated on campus,” she says. “Give people an opportunity to channel their heart-felt environmental intentions and watch for results,” Nixon adds. “These projects allow them to translate that consciousness into real outcomes.”

Paula Bender (AA ’91 Kapi‘olani, BA ’94 Mānoa) is a freelance writer in Honolulu

Comment on this story, email magazine@hawaii.edu

More at <http://sustainability.hawaii.edu/group/council> and <http://sustainablesaunders.hawaii.edu>

A Century of Outstanding Alumni

UH Alumni Association celebrates its heritage of distinguished alumni May 22 at the Sheraton Waikīkī Hotel. Past honorees are listed; degrees are from Mānoa unless otherwise listed. Class Notes returns next issue.

Key: FA - Founders Association Alumni Award; DAA - UHAA Distinguished Alumni Award; LA - Founders Association Lifetime Achievement Award; * Deceased

1910s

Leslie A. Hicks (BS '17)* Executive FA '52.
William H. Meinecke (BS '13)* Educator FA '51

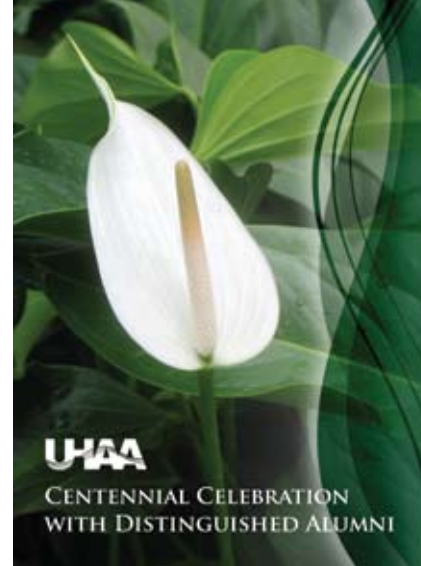
1920s

Daniel K. 'Ainoa (BS '27)* Organizer FA '52
Gwenread E. Allen (BA '24)* Historian FA '67
Neal S. Blaisdell (attended '21-'23, '27-'28)* Mayor FA '63
Laura P. Bowers (BA '25)* Educator FA '53
Hung Wai Ching (BS '28)* Developer FA '54, FA '89
Quan Lun Ching (BA '28)* Educator FA '78
Ezra J. Crane (attended '19-'21)* Editor FA '61
Carl Farden Sr. (BS '25)* Chemist FA '72
May K. Gay (BA '23)* Educator FA '52
Baron Goto (BS '24)* Educator FA '53
Bernhard L. Hormann (BA '27, MA '31)* Educator FA '58.
Doris K. M. Keppeler (BA '24)* Educator FA '54
Herbert A. Keppeler (BS '24)* Engineer FA '69
Beatrice Krauss (BS '26, MS '30)* Educator FA '56, DAA '98
Richard K. C. Lee (attended '27-'29)* Educator FA '68
Richard Lyman Jr. (BS '25)* Legislator FA '75
Iwao Miyake (BS '26, MS '29)* Educator FA '53
Jen Fui Moo (BA '22)* Banker FA '57
Richard Penhallow (BS '26)* Rancher FA '59, DAA '89
Richard H. Rice (BS '28)* Executive FA '64
Shunzo Sakamaki (BA '27, MA '28)* Educator FA '55
Theodore "Pump" Searle (BS '26)* Administrator FA '55
Toma Tasaki (BS '29) FA '70, Educator FA '83
Fortunato Teho (BS '27)* Educator FA '77
Masayuki Tokioka (BA '25)* Businessman FA '81, FA '86
Masao Yamada (BA '29)* Minister FA '80
Ah Hee Young (BA '25)* Actress FA '62

1930s

Abraham Akaka (attended '34-'36)* Minister FA '62

John A. Burns (attended '30-'31)* Governor FA '63
Oswald "Ozzie" Bushnell (BS '34)* Author FA '56
Francis M. F. Ching (BA '36)* Mayor FA '61
Hung Wo Ching (attended '31-'32, '41)* Executive FA '58
Wing Kong Chong (attended '36-'38, '47)* Businessman FA '71
Dai Ho Chun (BA '30, MA '37)* Educator FA '59
George V. Clark (BS '38)* Engineer DAA '76
Marion Diamond (BEEd '35)* Educator DAA '91
Hubert V. Everly (BEEd '34, PD '38, MED '39) Educator FA '59
Hiram L. Fong (BA '30)* U.S. Senator FA '60, DAA '91, LA '02
Mitsuyoshi Fukuda (BS '38, PD '39)* Executive FA '72
Edward T. Fukunaga (BS '34, MS '35)* Researcher FA '59
Yasutaka Fukushima (BA '37) Judge FA '71
Lillian A. Givens (BA '30)* Educator FA '69
Allen Hawkins (BA '30)* Judge FA '80
Hiro Higuchi (BA '31)* Minister FA '67
William Hiraoka (BA '39)* Executive FA '88
Edward Hiroki (BS '38)* Manager FA '79
Martha K. Hoku (BA '32)* Musician FA '57
Robert H. Hughes (BS '38) Executive FA '73, DAA '89
Clement M. Judd (BS '31)* Educator FA '85
Dorothy Kahananui (MED '36)* Educator FA '53
Thomas K. Kaulukukui Sr. (BEEd '38, PD '39, MED '41)* Trustee FA '88, DAA '90
Charles Kwock (BA '33)* Minister FA '71
Kan Jung "K. J." Luke (BA '36)* Entrepreneur FA '77, DAA '92
Ah Quon McElrath (BA '38) Activist DAA '89, LA '04
Calvin C. McGregor (BA '37)* Judge FA '54
Anita K. Moepono (BA '39)* Counselor FA '55, FA '85
James Masami Morita (BA '36)* Banker FA '82, DAA '90
Mark Y. Murakami (BA '34)*
Theodore F. Nobriga (BA '32)* Administrator FA '56
Seido Ogawa (BA '37)* Minister FA '66
Charles F. Penhallow (BS '33) Executive FA '81
Hebden Porteus (BA '33)* Attorney FA '58
Richard Y. Sakamoto ('30) FA '82
Robert Stevenson (BS '37, BBA '37)* Adjutant



general FA '67

Edna Taufaaasau (BA '37)* Administrator LA '90
Hei Wai Wong (BA '37)* Broker FA '80
Douglas Yamamura (BEEd '38, PD '39)* Educator FA '78

1940s

Isabella Aiona Abbott (BA '41) Educator DAA '94
Shiro Amioka (BEEd '42, MED '52)* Attorney FA '74
William K. Amona (BA '49) Educator FA '69
George R. Ariyoshi (attended '44-'47) Governor FA '75
Gladys K. 'Ainoa Brandt (BEEd '42)* Educator FA '60, DAA '87, LA '00
Rosie Kim Chang (BS '47, MPH '77) Administrator DAA '95
Walter G. Chuck (BEEd '41)* Attorney FA '66
Elmer F. Cravalho (BA '47) Lawmaker FA '68
Charles A. Engman Jr. (BS '49) Educator FA '74
Thomas P. Gill (attended UH, '40-'42, '47) Attorney FA '68, LA '07
Raymond Y. C. Ho (BA '48)* Businessman FA '57
David Hyun (BS '40) Architect DAA '95
Teruo Ihara (BS '40, PD '41)* Educator LA '92
Andrew W. S. In (BEEd '42, PD '48) Educator DAA '95
Haruyuki Kamemoto (BS '44, MS '47) Educator DAA '01
Jean Sadako King (BA '48, MFA '68) Lawmaker FA '81, DAA '87
Ralph Kiyosaki (BEEd '42, PD '42)* Educator FA '62
Samuel Koide (BS '45) Physician DAA '06
Richard Kosaki (BA '49) Educator FA '68, DAA '96
Daniel B. T. Lau (BA '41) Entrepreneur FA '02
Robert M. W. Lee (BA '42, MA '51) Businessman FA '73
Fujio Matsuda (attended '42, '46-'47) Educator FA '74, DAA '91
Spark M. Matsunaga (BEEd '41)* U.S. Senator FA '66
Patsy T. Mink (BA '48)* Congresswoman FA '66, DAA '87
Ralph M. Miwa (BA '48, MA '50)* Educator DAA '92
Margaret Oda (BEEd '47, EdD '77) Educator DAA '92
William S. Richardson (BA '41) Chief justice FA

'64, DAA '95, LA '03

Winona Rubin (attended '47-'49, '50s, '60s, '72-'73) Educator DAA '87

Francis Y. Sogi (BA '49) Attorney DAA '94

Sakae Takahashi (BS '41)* Legislator FA '61

Richard S. Takasaki (BS '40) Educator FA '64

George Wackenhut (BS '43)* Businessman DAA '87

Dick Yin Wong (BA '42, MA '44)* Judge FA '77

Hirotohi Yamamoto (BA '46)* Broker FA '69

Wadsworth Y. H. Yee (attended '40-'47)

Businessman FA '76

1950s

Lucile Abreu (attended '53, '54)* Policewoman FA '78

Joshua C. Aagsalud (BEd '55, PD '61) Educator DAA '89

Daniel Akaka (BEd '52, PD '53, MEd '66) U.S. Senator DAA '87, LA '99

Eileen Anderson (BA '50) Mayor FA '81

Charles T. Araki (BEd '57, PD '61) Educator DAA '05

Ronald Au (BA '58) Attorney FA '83

Ronald E. Bright (BEd '56, PD '57, MEd '73) Educator LA '05

Momi W. Cazimero (BFA '55) Businesswoman DAA '90

Vernon Char (BA '56) Attorney DAA '92

Robert M. Fujimoto (BA '51) Businessman DAA '93

Walter M. Heen (BA '53) Lawmaker FA '70

Philip Helfrich (PhD '58) Scientist DAA '97

Edward Hirata (BS '56) Administrator DAA '93

Daniel K. Inouye (BA '50) U.S. senator FA '60, DAA '00

Satoru Izutsu (BA '50) Educator DAA '93

Robert N. Katayama (BA '50) Attorney DAA '01

E. Alison Kay (PhD '57) Researcher DAA '89

Francis Keala (BA '53) Police chief DAA '00

Dewey Kim (BA '50) Educator DAA '94

Donald C. W. Kim (BS '58) Engineer DAA '90

Yoshi Tanji Koga (BEd '51, PD '57) Educator LA '89

Richard Mamiya (BS '50) Surgeon DAA '87

Dorothy I. Matsuo (BS '50, MPH '70, EdD '82) Educator DAA '90

Helen R. Nagtalon-Miller (BEd '51, PD '51, MA '67) Educator DAA '94

Harriet Natsuyama (BA '59, MS '60) Scientist DAA '91

Seiji Naya (BBA '58) Economist DAA '06

Thelma Chock Nip (BA '50, PD '61) Educator DAA '04

Frederick F. Y. Pang (BEd '58, MBA '72) Administrator DAA '95.

Abraham Piianaia (BA '53, MA '55)* Educator FA '73, DAA '96

Patricia Saiki (BS '52) Congresswoman DAA '87

Patsy Saiki (BEd '54, PD '55, MEd '59)* Educator DAA '92

Ben Taguchi (BS '54) Engineer DAA '94

Edmund K. Toma (BA '55)* Educator FA '79

James Walker (BS '59, PhD '62)* Administrator DAA '92

Frank Watase (BA '50) Businessman DAA '04

Denis Wong (BA '50) Entrepreneur FA '82

Edwin S. N. Wong (BA '51)* Businessman FA '83, DAA '01

Livingston M. F. Wong (BS '52) Surgeon DAA '98

Richard S. H. Wong (BA '56) Legislator FA '79

James Yagi (BBA '57) Coach FA '85

1960s

Neil Abercrombie (MA '64, PhD '74) Congressman DAA '91

Dyanne Affonso (BS '66) Educator DAA '98

Amefil Agbayani (MA '66, PhD '69) Administrator DAA '96

Doris M. Ching (BEd '63, PD '65, MEd '71) Educator DAA '99

Michael Chun (MS '68) Educator DAA '94

David E. K. Cooper (BA '63) General DAA '98

Walter A. Dods Jr. (BBA '67) Banker DAA '93

Frederick Duennebier (MS '68, PhD '72) Scientist DAA '05

Robert P. Hiam (BA '69) Executive DAA '05

Ronald N. S. Ho (BS '67, MS '68) Engineer DAA '00

Lawrence M. Johnson (BBA '63) Banker DAA '93

Clement M. Judd Jr. (MBA '69)* Executive FA '86

Eleanor Judd (BA '66) Educator FA '83

Howard Karr (BBA '66) Banker DAA '03

Asad Khan (PhD '67) Educator DAA '95

Mo-Im Kim (MS '67) Administrator DAA '99

Walter Kirimitsu (BA '62) Judge DAA '07

Patricia Y. Lee (BA '65, JD '79) Attorney DAA '06

Alexander Malahoff (PhD '65) Scientist DAA '93

Harold Masumoto (BA '60, MA '68) Administrator DAA '88

Marie Nakanishi Milks (BA '66) Judge DAA '89

Sharon Narimatsu (BA '67, MA '75) Administrator DAA '91

Ernest K. Nishizaki (BBA '69) Executive DAA '98

Gary A. Okamoto (BA '66) Executive DAA '05

Carole Kai Onouye (BMus '67) Entertainer DAA '05

Richard Parsons (attended '64-'68) Executive DAA '97

Larry D. Price (BS '67, MEd '71) Radio host DAA '89

Melvyn K. Sakaguchi (BA '60) Educator FA '85

Yoshiko Sakurai (BA '69) Journalist DAA '95

Puonpun Sananikone (BA '68) Businessman DAA '03

Jay H. Shidler (BBA '68) Developer DAA '07

Jeanette C. Takamura (BA '69, MSW '72) Educator DAA '94

Barry K. Taniguchi (BBA '69) Businessman DAA '04

Andre S. Tatibouet (BA '64) Hotelier DAA '90

Joyce S. Tsunoda (BA '60, PhD '66) Educator DAA '90

Walter Wong (MPH '68) Administrator DAA '92

1970s

Naleen Naupaka Andrade (BA '76 Hilo, MD '82)

Educator DAA '01

S. Haunani Apoliona (BA '73, MSW '76) Advocate

DAA '92

Patricia Lanoie Blanchette (AA '72 Leeward, BA

'74, MD '79, MPH '79) Physician DAA '92

Reiko Brandon (MFA '74) Artist DAA '87

Robin K. Campaniano (BA '73, MBA '83) Executive DAA '00

Fred Shiu Leung Chan (BS '72, MS '74)

Philanthropist DAA '99

Chang-Yoon Choi (MA '70, PhD '73)* Educator DAA '96

Elroy K. Chong (attended '71-'72) Coach FA '86

David C. Cole (BA '76) Executive DAA '97

Gregory Dever (MD '78) Administrator DAA '96

Madeline A. L. Ehia (AS '79 Kapi'olani, BA '88

West O'ahu, MPH '89) Administrator DAA '90

Eddie Flores Jr. (BBA '70) Entrepreneur DAA '99

Jack S. Fritz (BA '73, JD '79) Official DAA '01

William Fruean (MD '77) Physician DAA '94

Madeleine J. Goodman (PhD '73)* Educator DAA '95

Warren Haruki (MBA '77) Executive DAA '02

Stanton Ho (Cert '75 Kapi'olani) Chef DAA '90

Allan K. Ikawa (BBA '71) Businessman DAA '03

Thomas Kaulukukui Jr. (JD '77) Judge DAA '06

Kent M. Keith (JD '77) Educator DAA '93

Soon-Kwon Kim (PhD '74) Educator DAA '98

Robert G. F. Lee (BS '71, MBA '83) Adjutant general DAA '06

Attilio Kanei Leonardi (AS Honolulu '72, MPA '94) Fire chief DAA '04

Wayne Carr Metcalf III (BA '75, JD '78) Judge DAA '89

Michael S. Nakamura (AS '74 Honolulu)* Police chief DAA '98

Barbara Peterson (PhD '78) Educator DAA '97

Dudley Pratt (MBA '71) Executive DAA '87

Pamela Samuelson (BA '71, MA '72) Educator DAA '00

Peter Savio (BBA '70) Developer DAA '87

Terry T. Shintani (JD '79, MD '85) Educator

DAA '99

Patrice Tanaka (BA '74) Executive DAA '03

Donna Tanoue (BA '77) Banker DAA '02

Lydia L. W. Tsui (BBA '75) Entrepreneur DAA '01

Kent Tsukamoto (BBA '78) Accountant DAA '06

Michael B. White (BBA '72) Hotelier DAA '92

Alan Wong (AS '79 Kapi'olani) Chef DAA '02

Victor Yano (BS '74, MD '78) Administrator

DAA '06

1980s

Beadie Kanahale Dawson (JD '81) Advocate DAA '04

David Iha (MEd '80) Educator FA '88

Jong-wook Lee* (MPH '81) Executive DAA '05

Kurt Osaki (BFA '88) Businessman DAA '02

Tina Shelton (BA '80) Communicator DAA '89

1990s

Kevin Hughes (attended Honolulu CC '91-'93) Software developer DAA '02

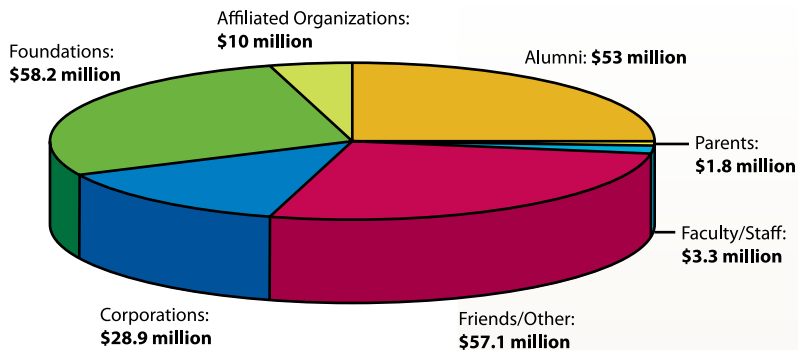
2000s

Elmer Botsai (ArchD '00) Educator DAA '05

Francis S. Oda (ArchD '00) Architect DAA '03

Non-Alumni

Genoa Keawe* Musician LA '06



Centennial Campaign Approaches Goal

The University of Hawai'i Centennial Campaign, launched publicly in August 2007, is closing in on its \$250 million target. As of Mar. 31, more than 80,000 donors, including nearly 20% of alumni, have contributed \$212 million toward campaign goals in areas of academic priorities, student scholarships and aid, research programs and other programmatic support.

Private support for the university comes from a variety of sources and amounts (see pie chart). Significant donations from past decades are highlighted at right, but every gift helps build a stronger university. About one in five alumni have made a gift; to join them in supporting programs on the 10 UH campuses, give online at www.uhf.hawaii.edu/give or call 808 956-8849 or (toll free) 1 866 846-4262.



1939: Hemenway Hall opens at a cost of \$85,000, contributed by the university community. The first student union building still serves students with food and recreation.

1959: Charles R. Hemenway Scholarship is named for the regent known to slip graduates an envelope with his congratulatory handshake, their student loan agreement inside marked "paid in full." Half a century and thousands of recipients later, his trust continues to provide scholarships.



1963: College Hill, valued at \$182,563, is donated by the children of Frank and Eleanor Atherton as a home for the UH president. It serves as a venue for university functions.



1984: The Dai Ho Chun Chair in Mānoa's Colleges of Arts and Sciences supports a scholar whose work transcends traditional boundaries of liberal arts disciplines. Born to a Waipi'o Valley rice farmer in 1905, Chun earned graduate degrees at UH and Ohio State University and promoted new trends in education.

1991: K. J. Luke Chair of International Finance and Banking promotes research and teaching focused on Asia and the Pacific. Luke worked in his parents' Big Island

plantation store, earned a UH bachelor's degree and an MBA from Harvard and helped establish Aloha Airlines and Hawai'i National Bank.

1994: The Center for Korean Studies has the largest concentration of Korean studies resources and scholars outside of Korea. A \$2 million endowment from the Korea Foundation, matched by \$1 million from private supporters in Hawai'i and Korea, supports the center's activities.



1995: Coconut Island is purchased and a laboratory built thanks to a \$9.6 million gift from the family of former owner Edwin W. Pauley.



He was a longtime supporter of the Hawai'i Institute of Marine Biology, providing \$10,000 in 1951 toward construction of the first laboratory on the island and additional funds to rebuild the lab after a fire in 1961.

2004: The Investigator in Marine Science award recognizes Mānoa oceanographer David Karl for research and community leadership.



The five-year, \$3.85 million grant from the Gordon and Betty Moore Foundation continues Karl's work on marine microbes' role in ocean ecology and global climate change.

2006: Shidler College of Business is named, recognizing a \$25 million donation from alumnus and commercial real estate developer Jay H. Shidler. UH's largest single donation to date supports scholarships, faculty positions and program support and has matched more than \$2.5 million in contributions from other donors.

2007: The Norman W. H. Loui Conference Center recognizes the largest single donation—more than \$3 million—to a UH community college. Honolulu CC carpentry graduate and equipment

Gifts that Changed UH

rental magnate Loui established three endowment funds before his death in 2006 to assist students in his alma mater's technical and trades programs.



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